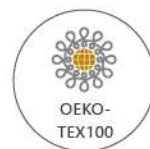


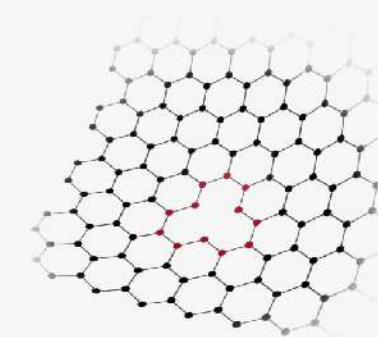


# Monolayer Graphene Oxide

—  
The world's first IGCC certified monolayer graphene oxide  
Holder of confidence in textiles OEKO-TEX Standard 100  
GaoxiTech original technology, with dozens of Chinese invention patents



## GaoxiTech, The Premier Cooperation Partner On Graphene



### Monolayer graphene oxide

- ◆ The world's first IGCC certified monolayer graphene oxide
- ◆ The only IGCC certified monolayer graphene oxide modified functional fiber in the world
- ◆ Three core technologies of GaoxiTech fibers: monolayer graphene oxide, in situ polymerization, fine denier yarn
- ◆ More than 100 invention patents  
GaoxiTech has the IPs from graphene to fibres
- ◆ Zhejiang University science achievements of graphene
- ◆ Graphene contained oxygen functional groups: easy to dissolve, easy to process, easy to reduce, easy to dope
- ◆ Functional graphene: more hydrophilic, more wettable, more practical
- ◆ Excellent adhesion to substrates: wash resistance, scratch resistance, bending resistance
- ◆ Peerless monolayer graphene: uniform dispersion, excellent far-infrared emission and UV resistance





扫码查询证书及编号

# World's First IGCC Certified Graphene Authorized



The world's first IGCC certified monolayer graphene oxide



The world's first IGCC certified monolayer graphene oxide modified fiber



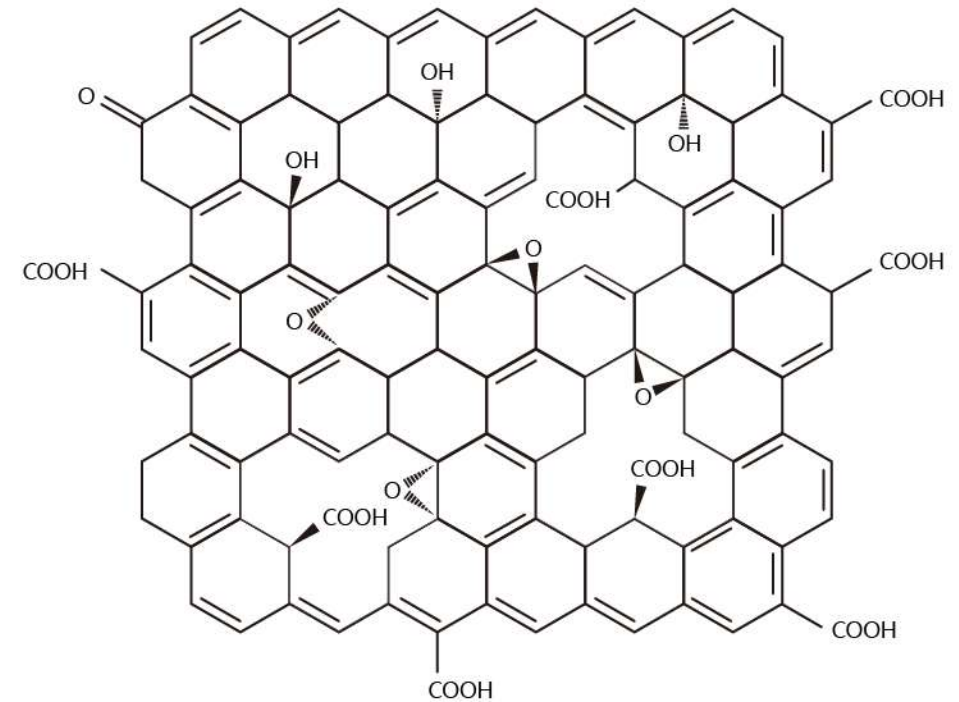
Pass the certification by confidence in textiles OEKO-TEX Standard 100.



Chinese Invention Patent, patent number ZL201710134838.3, ZL201710131351.X

## Monolayer Graphene Oxide

Structurally, graphene oxide could be regarded as introducing oxygen-containing functional groups, such as carboxyl, hydroxyl, and epoxy, onto the monolayer graphene. After the reduction reaction, almost perfect graphene structure will be obtained. Therefore, graphene is always seen as the most important precursor of graphene.





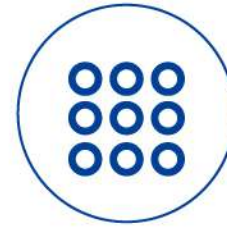
# **Eight Characteristics And Advantages Of Gaoxitech Monolayer Graphene Oxide**



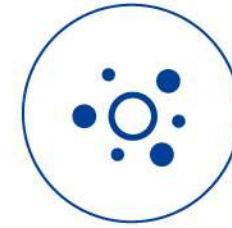
Near 100% monolayer quality



Large lateral size



Bright liquid crystal



Outstanding dispersibility



Continuous spinnability



Ultra-purity



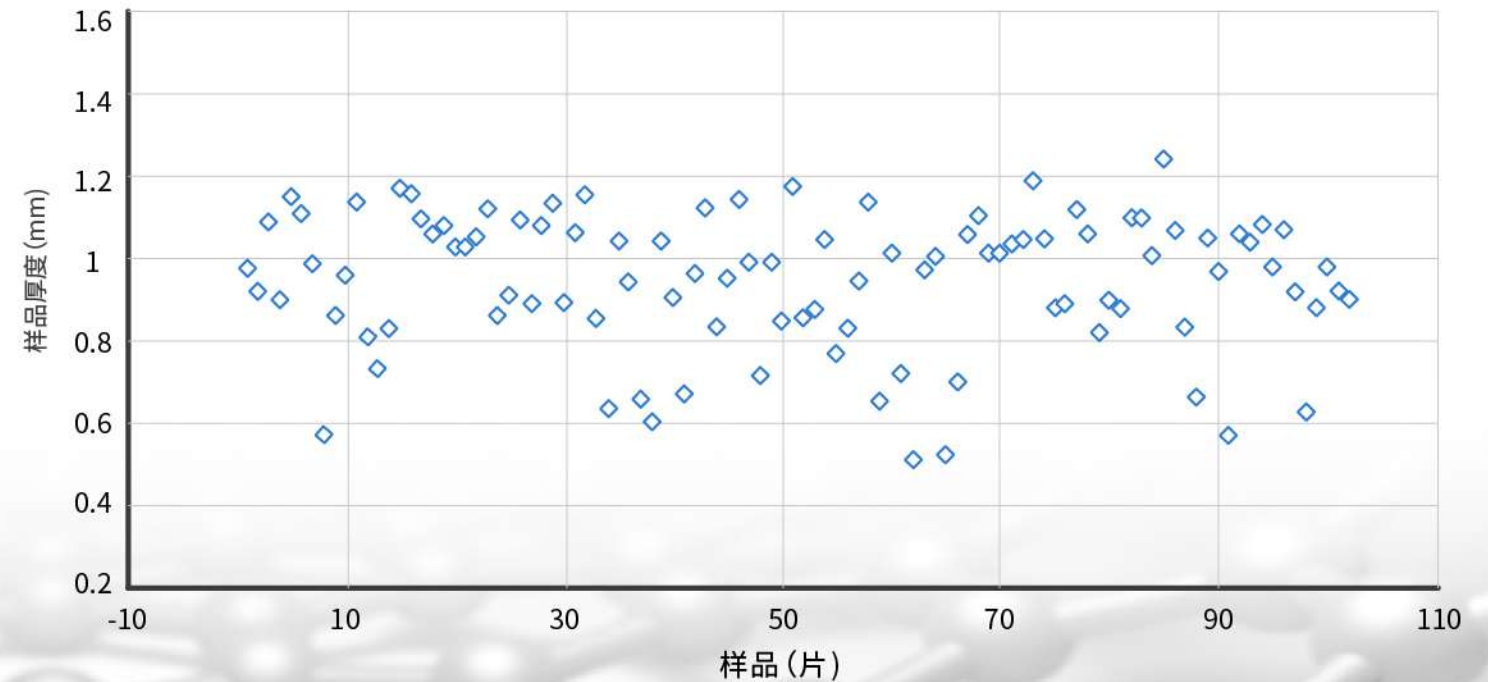
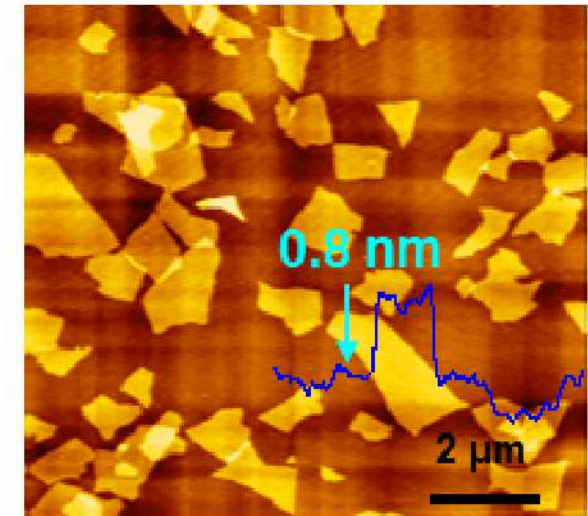
High solubility



Excellent powder re-dispersibility

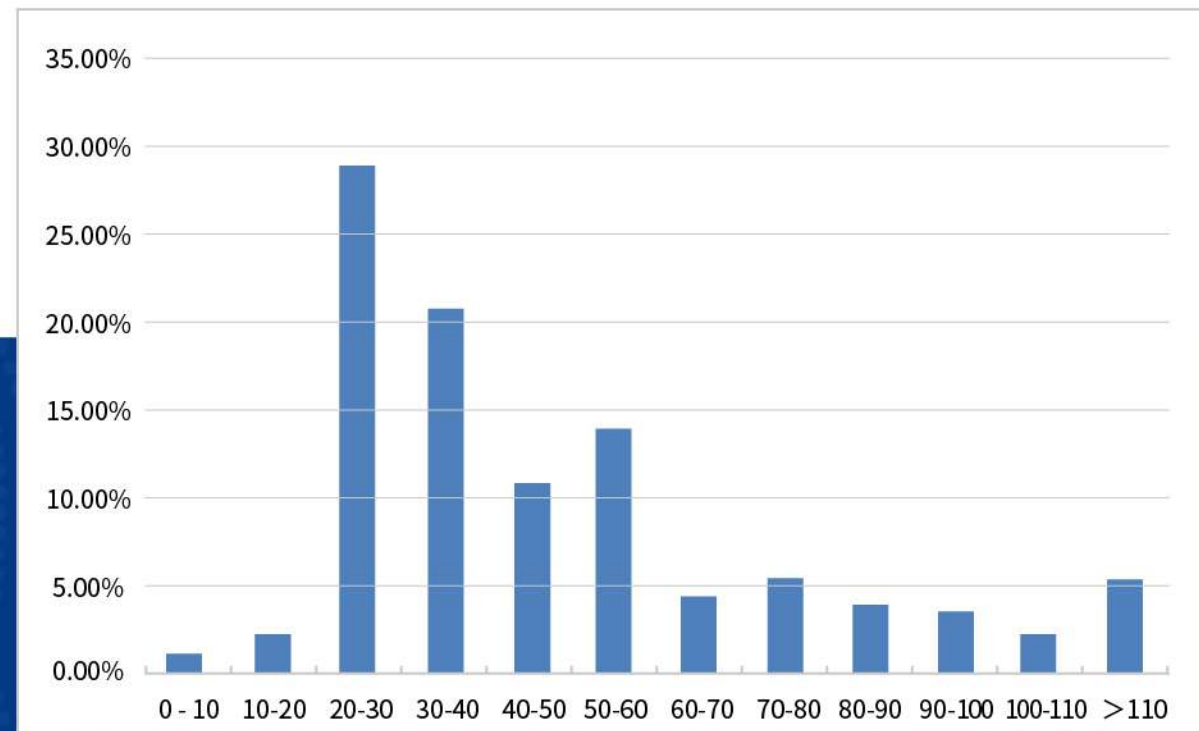
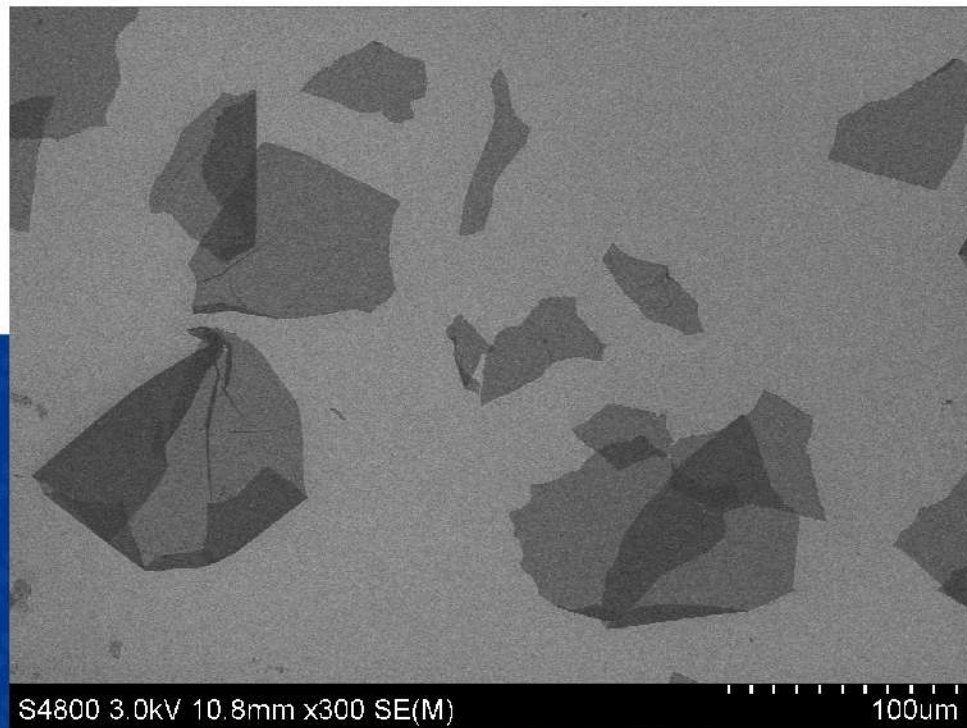
## >99% Monolayer Graphene

The product is monolayer graphene oxide with a rate of over 99% and is the world's first IGCC certified monolayer graphene oxide



## Large Lateral Size

The average lateral size of monolayer graphene oxide is larger than 40 microns. Additionally, the lateral size is adjustable with narrow size distribution, which is suitable for scientific research.





## Continuous Spinnability

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The product is spinning-grade monolayer graphene oxide, which can be used to produce continuous graphene fibers by wet spinning without any additives. This is an international original technology.

Graphene Fibers







## Bright Liquid Crystal

Liquid crystals can be formed at a low concentration (about 1 mg/g), and bright and colorful liquid crystal texture can be observed under polarized light microscope.



## Outstanding Dispersion

Monolayer graphene oxide has good dispersion in composites. Multifunctional composite materials with less aggregation can be prepared by in situ polymerization.

## Ultra Purity

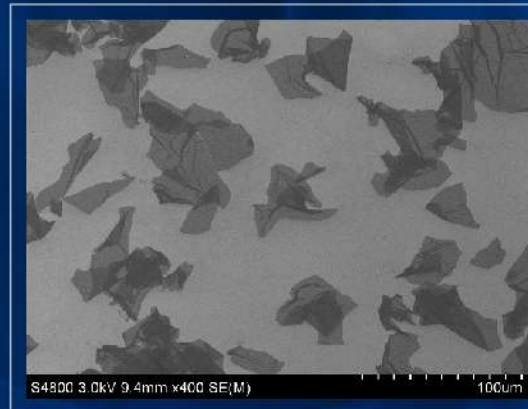
Metal ion content is extremely low, reaching the electronic grade purity.



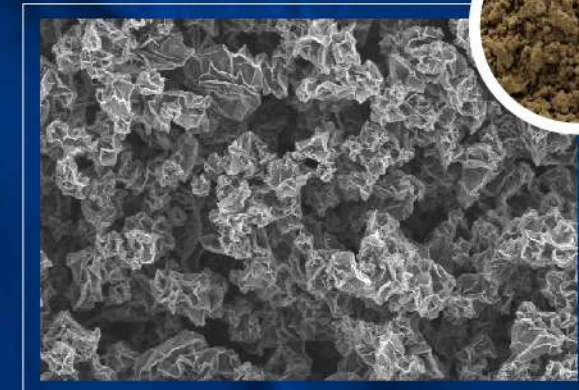


# High Concentration Dissolution

The powder and paste products are available. The powder can be re-dispersed into monolayer graphene oxide in water and polar organic solvents.

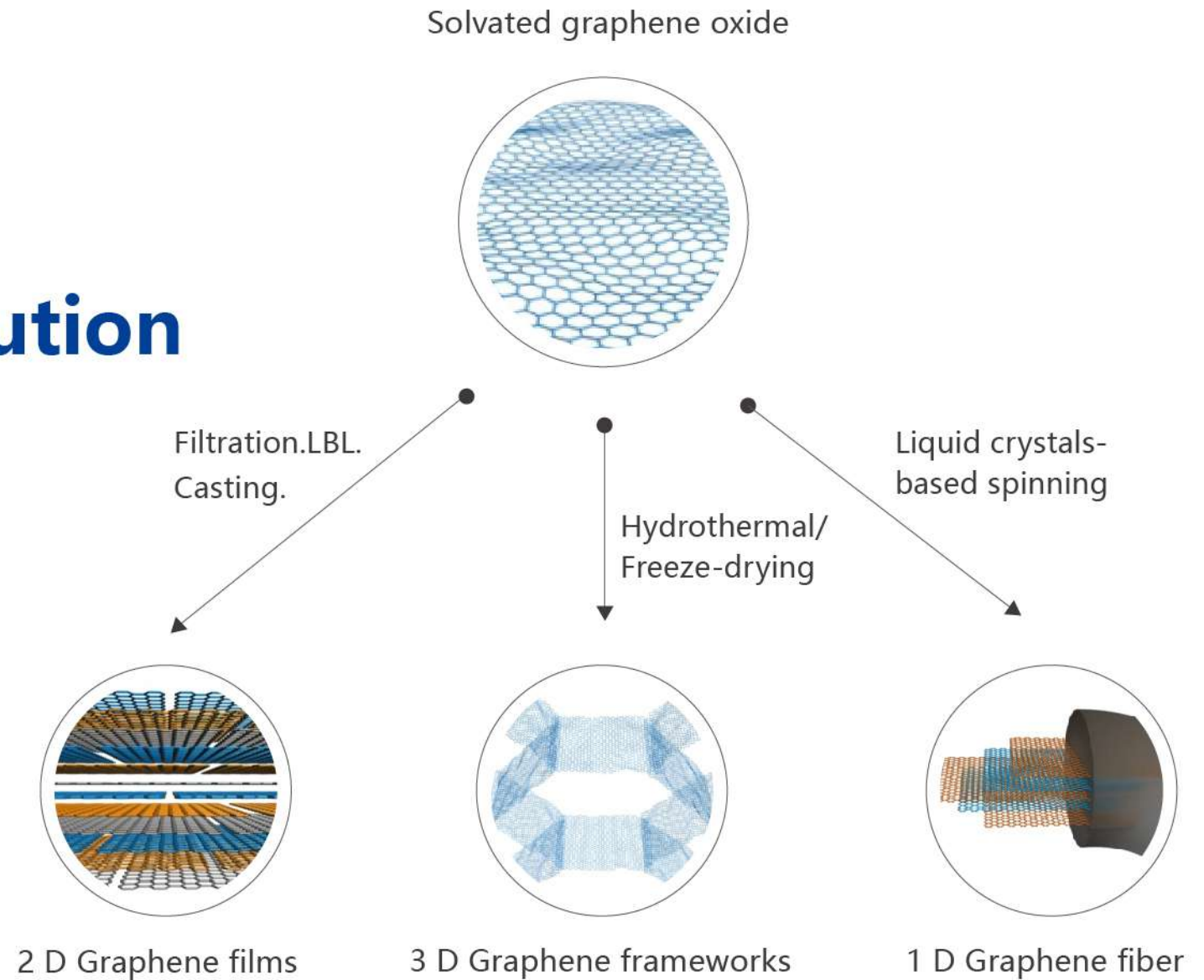


Dry  
↔  
Dissolution



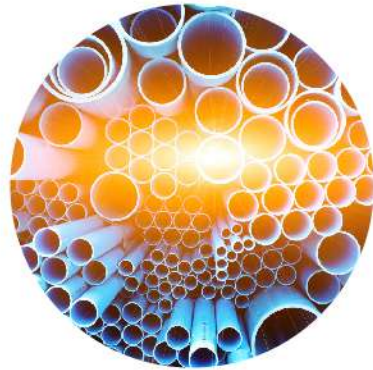
# High Concentration Dissolution

Monolayer graphene oxide is highly soluble in water and polar organic solvents (>10 mg/g), which can be directly spun into fibers, scraped into films or freeze-dried into aerogels.





# Wide applications of monolayer graphene oxide



## Materials

High-performance composite materials  
Functional textiles, Carbon fiber  
Sewage treatment  
Environmental treatment  
Wave absorption  
Anti-corrosion  
Lubrication, graphene film  
Graphene aerogel



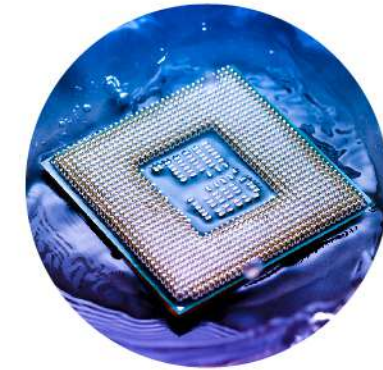
## Energy Field

Supercapacitor  
Steam preparation using  
solar energy  
Fuel cell, battery  
Flexible energy storage  
Nanofiltration  
Heat conduction film  
Electrocatalysis



## Sensor

Detection sensor  
Biological detection  
Flexible touch screen  
Electronic paper  
printing circuit  
Chemical/humidity/sound/me-  
chanics/monitoring



## Devices

Transistors  
Dna sequencing  
Optoelectronic devices  
Wearable devices  
Health therapy devices



# GaoxiTech 高烯科技

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Monolayer Graphene for Healthy Life 单层石墨烯康护新生活